

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:**Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-001116**Date Inspected:** 05-Dec-2007**Project Name:** SAS Superstructure**OSM Arrival Time:** 630**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1730**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Fu Yu Hong**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** OBG Second Weld Trial**Summary of Items Observed:**

CALTRANS Quality Assurance (QA) Inspector, Alfredo Acuna was present witnessing and performing 100% ultrasonic testing (UT) on the partial penetration joint (PJP) for the second weld trial scheduled for this project at the ZPMC facility in Shanghai, China for the San Francisco Oakland Bay Self Anchored Suspension Bridge on Bay # 1. ABF representative Mr. Art Peterson and Mr. David LaRue, and ZPMC representative Mr. Li Li Ming were at location performing UT verifications. The photographs below show ABF and ZPMC representatives during the UT verifications. The QA inspector had a conversation with ABF representative Mr. Art Peterson. Mr. Art Peterson relayed that ABF was going to help ZPMC to complete the 100 % ultrasonic testing on the second weld trial.

The QA inspector observed that ABF representative Mr. Art Peterson gave an introduction to Mr. Li Li Ming on how to use ZPMC's UT U-rib procedure with the help of ZPMC QA representative Mr. Shen Xue Jun (translator).

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Item Description	WBS	Dwg No.	Status
<p>1 UT verifications on the PJP for the Second Weld Trial</p> <p>The QA Inspector performed 100% ultrasonic testing (UT) evaluation after Mr. Art Peterson on the partial penetration joint (PJP), at the 12 mm U-rib # U-75 weld joint # 5. The QA inspector concurred with Mr. Art Peterson findings (approximately 2 meters, 2 indications).</p> <p>The QA inspector performed 100% ultrasonic testing (UT) evaluation after Mr. Art Peterson on the partial penetration joint (PJP) at the 12 mm U-rib # U-73 weld joint # 1. The QA inspector concurred with Mr. David LaRue findings (approximately 2 meters).</p> <p>The QA inspector performed UT verifications to the weld # 2 from the U-rib U-05 after Mr. Li Li Ming. The QA inspector found a recordable 2.86 mm Lop with 40 % FSH, 70 mm from the left end of the rib that Mr. Li Li Ming missed. The QA inspector asked Mr. Art Peterson if ZPMC could reverify the indication. Mr. Li Li Ming found a 18% FSH no recordable indication. Mr. Art Peterson and Mr. David LaRue verified the indications as well. Mr. Art Peterson found evaluating with a USN-58 unit a maximum of 26% FSH and 2.5 mm of Lop; Mr. David LaRue found evaluating with the USN-58L 43% FSH and 2.96 mm Lop. Mr. Li Li Ming and the QA inspector rechecked the calibration and obtained similar values than before. Mr. David LaRue had a phone conversation with Mr. Warren Buehler who was coordinating the test from ABF and ZPMC. Mr. David LaRue brought it to the attention of Mr. Warren Buehler about the discrepancy obtained by the testers. Mr. David LaRue relayed that Mr. Warren Buehler directed to continue performing UT verifications. ZPMC re-examined the weld that ZPMC had already completed with no recordable indications (approximately 4 meters).</p>			
<p>2 Connection plate assembly at the OBG Deck Mock-up</p> <p>The QA inspector performed random dimensional verifications of the bolted connection splice for the OBG Deck Mock-up. The QA inspector observed that ZPMC was hand bolting the splice # 4 and 5 at the connection plate. The QA inspector measured the alignment between the ribs at the bottom side of the ribs # U-01 and U-06, and U-02 and U-07. The QA inspector found a maximum of 2 mm of misalignment by weld # 1.</p>			

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Summary of Conversations:

As noted above.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Mazen Wahbeh, (818) 292-0659, who represents the Office of Structural Materials for your project.

Inspected By:	Acuna,Alfredo	Quality Assurance Inspector
Reviewed By:	Cuellar,Robert	QA Reviewer
